

## REMARKS

### Objection to Specification

The examiner objected to the specification for an informality which has been corrected by the above amendments.

### Objections to Claims

The examiner objected to the claims for various informalities which have been corrected by the above amendments.

### Claim Rejections - 35 USC §102

The examiner rejected claim 1, 11, and 19 under 35 USC §102(e) as anticipated by Hahne et al (6,538,416). The applicant respectfully disagrees.

Regarding claim 1, the examiner asserts that Hahne discloses a multi-dimensional network comprising a discovery facility for discovering a depth of each dimension, and an addressing facility for assigning a matrix address to each switched node. For example, the examiner asserts that the source router S1 which generates a PROBE message is used to discover a reservation path, and asserts that an addressing facility is inherently included to assign router identification. The applicant respectfully disagrees.

A multi-dimensional network does not “inherently include” an addressing facility for assigning a matrix address to each switched node. Although Hahne discloses a technique for discovering a “reservation path” through a network, Hahne does not disclose or suggest to discover a depth of each dimension in the network in order to facilitate the addressing of each switched node. By first discovering the depth of each dimension, an optimal matrix address can be assigned to each switched node. This aspect of the present invention is described on page 6, lines 24+:

“When initializing the switched fabric network, the number and depth of each dimension is unknown. An initialization matrix address comprising an initialization DNN is used during the discovery process. The initialization DNN comprises a maximum number of sub-fields to represent a maximum number of dimensions and each sub-field comprises a maximum number of bits to represent a maximum depth of each dimension. Once the number of dimensions and depth of each dimension has been discovered, the matrix address is reduced to an optimal matrix address, such as the matrix address 8B shown in FIG. 3B which comprises three sub-fields "I"-"K" corresponding to a three-dimensional matrix. Each sub-field comprises the optimal number of bits to represent the number of nodes in their respective dimensions.”

The rejection under 35 USC §102 should be withdrawn since Hahne does not disclose every element recited in the claim, particularly a discovery facility for discovering the depth of each dimension, and an addressing facility, responsive to the discovery facility, for assigning a matrix address to each switched node.

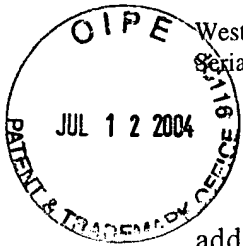
Regarding claim 19, the examiner asserts that Hahne inherently discloses the step of leasing idle resources within a first switched node to a second switched node. The examiner asserts that the routers disclosed by Hahne must inherently “lease” resources from one another in order to enable reservation of sufficient bandwidth. However, this interpretation of Hahne is incorrect. Referring to col. 4, lines 63-65, “as the PROBE message passes through the routers, each router determines if it is capable of accommodating the amount (i.e., size) of the bandwidth requested in the reservation.” If any one of the routers is incapable of accommodating the bandwidth request, a rejection message is returned to the source router (col. 5, lines 1-3). Nowhere does Hahne disclose or suggest that if a particular router cannot accommodate a bandwidth request to lease

resources from another router in order to accommodate the request. The rejection should be withdrawn.

**Claim Rejections - 35 USC §103**

The examiner rejected claim 2-3, 6-7, 10, 12-13 and 16 under 35 USC §103(a) as unpatentable over Hahne et al (6,538,416). The applicant respectfully disagrees for the reasons set forth above.

The rejection of the remaining claims should be withdrawn for the reasons set forth above.



CONCLUSION

The above amendments to the specification and claims do not raise new issues or add new matter; the applicant respectfully requests the examiner to enter the amendments. In view of the foregoing amendments and remarks, the rejections should be withdrawn. In particular, Hahne does not disclose or suggest a discovery facility for discovering the depth of each dimension in a multi-dimensional network, and an addressing facility, responsive to the discovery facility, for assigning a matrix address to each switched node. The examiner is encouraged to contact the undersigned over the telephone in order to resolve any remaining issues that may prevent the immediate allowance of the present application.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on:

7/7/04 Howard H. Sheerin  
(Date) (Print Name)

Howard H. Sheerin  
(Signature)